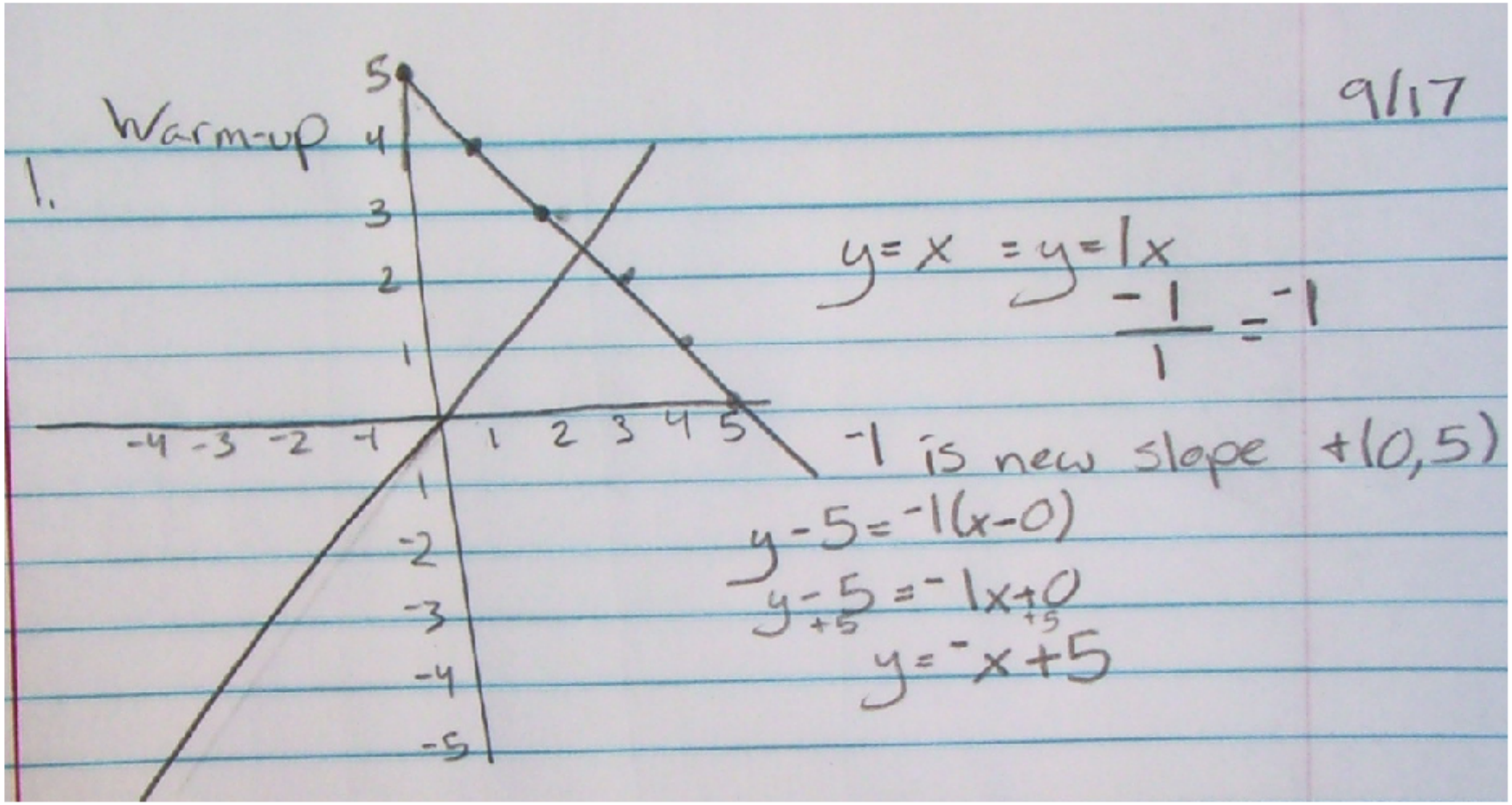
1. Graph the line that has an equation of the form **y = x**. Then, write an equation that runs perpendicular to **y = x** and passes through the point **(0, 5)**. Add this new line to your graph.

2. What is the slope of the following linear equation?

$$Ax + By = C$$ (Hint: Solve for y)

3. Write an equation in slope-intercept form of the line that passes through **(1, 3)** and **(4, -4)**.


Warm-up
1.
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y = x = y = 1x
-1/1 = -1
-1 is new slope +(0,5)
y - 5 = -1(x - 0)
y - 5 = -1x + 0
+5 +5
y = -x + 5

2. $Ax + By = C$

$-Ax \qquad -Ax$

$\text{Slope} = \frac{-Ax}{B}$

$\frac{By}{B} = \frac{C - Ax}{B}$

$y = \frac{C - Ax}{B}$

3. $\frac{3+4}{1-4} = \frac{7}{-3}$ $(1,3)(4,-4)$

$y - y_1 = m(x - x_1)$

$y - 3 = -\frac{7}{3}(x - 1)$

$y - 3 = -\frac{7}{3}x + \frac{7}{3}$

$y - \frac{9}{3} = -\frac{7}{3}x + \frac{7}{3}$

$y = -\frac{7}{3}x + \frac{16}{3}$

Use p.86 to put in the data points and find the linear regression line.

Press ZOOM 9 to automatically fit the data on your graphing window.

Use the TRACE function on your calculator to find two points you want to use for your linear equation.

HW: p. 81: **7, 27**

p. 109: **11, 12, 16, 19**